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ABSTRACT

The final evaluation of an English-as-a-Second-Language and mathematics basic skills program, provided by a college, for limited-English-proficient workers in a manufacturing company, is presented. The program was originally designed to teach job-related skills, but was amended by managers to build worker self-esteem and worker participation in evolving organizational development initiatives. Learners consistently asked for additional English skills not specifically for job use, and instructors readily complied. It was determined that management was generally satisfied with program results, although hard data about job-related outcomes were not available. Learners expressed satisfaction, and showed conventional learning patterns, i.e., (1) those learners who regularly attended and participated actively in the program tended to show the most progress; (2) some learners remained "fossilized" at a low level and showed little inclination to move beyond that level; and (3) higher-skilled learners tended to show greater relative progress. Supervisors tended not to see clear transfer of classroom skills to jobs. The final evaluation report enumerates lessons learned from program implementation in these areas: goal-setting and ongoing communication among stakeholders; curriculum development; assessment; staff development; learner recruitment, placement, orientation, and retention; scheduling; facilities needs; program evaluation; and dissemination of results. Future options of the program are discussed. (MSE) (Adjunct ERIC Clearinghouse on Literacy Education)

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FINAL EVALUATION REPORT FOR THE SEMI-ALLOYS/MERCY COLLEGE WORKPLACE EDUCATION PROGRAM

Submitted February 22, 1995
by
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U.S. DEPARTMENT OF EDUCATION
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EXECUTIVE SUMMARY

From mid-1993 through 1994, Mercy College educators worked with management at the Semi-Alloys Company to plan and carry out a basic English and math program for approximately sixty limited-English-proficient employees in the company's Mt. Vernon, NY computer-component manufacturing facility. The program produced positive results for both the company and individual employees. It also demonstrated what a workplace education program needs to do to ensure a relevant, well-supported worker education effort. As such, the program has generally met the National Workplace Literacy Program's dual purpose of direct service to participating workplaces and research and development related to effective workplace education practice.

These positive results are due to:

- Committed, creative instructors who are able to identify relevant learning objectives and plan and conduct instruction to meet those objectives.
- Learners with the motivation required to stick with the classes and figure out how to relate what is taught to their own situations.
- A company which has provided release time, facilities, and other resources.
- The U.S. Department of Education's support.

Summarized below are the program's goals and achievements, along with "lessons learned" about such program components as goal-setting and ongoing communication among stakeholders; curriculum development; assessment; staff development; learner recruitment, placement, orientation, and retention; scheduling; facilities; evaluation; and dissemination.

Program goals: What stakeholders hoped to achieve

- Initially, management asked for a program to achieve specific job-related outcomes (e.g., reduced defects, miscommunications, and absenteeism). As the program got underway and the company introduced new production procedures and hired new

workers, managers broadened their view of what the program might achieve. They viewed the program as a means for building worker self-esteem and ability to participate in the company's evolving organizational development initiatives. By the end of the program, managers felt the program should help learners to develop the communication skills they needed not only on the job but off. In so doing, the program would encourage learners to continually practice using English and respond to the learners' desire for language skills useful in many contexts.

- Learners consistently asked for English language skills they could use not only on the job but in other contexts, as well.

- Instructors were ready to respond to whatever needs management and learners identified. Initially instruction focused heavily on job-related language and math tasks identified by management. As the program developed and those tasks were covered, instructors increasingly took their cues from the participating workers about what uses of English and math to focus instruction on.

What the program achieved

- Management was generally satisfied with the program's results. Hard data about the specific job-related outcomes anticipated in the project proposal were not available. This was largely due to the fact that the company was implementing many changes at once and correlating changes in productivity, etc. to a single factor like an education program was not feasible. However, managers did cite anecdotes about improved problem-solving, communications, loyalty, self-esteem, inter-ethnic cooperation, and promotions for the more active participants. The clearest sign that management found the program valuable is the fact that the company will continue to fund classes after federal funding ends, using the same education provider.

- Learners generally were satisfied with what they saw as a unique adult education opportunity.

• Assessment data and instructor feedback indicated a predictable pattern of results for learners: (1) those learners who regularly attended and participated actively in the program tended to show the most progress, (2) some learners tended to remain "fossilized" at a low level and showed little inclination to move beyond that level, and (3) higher-skilled learners tended to show greater relative progress than lower-skilled ones (the former tending to have more formal education in their home countries than the latter).

• Supervisors tended not to see clear transfer of what was being learned in the classroom back into the workplace. (These same supervisors also said they were generally not very informed about the content of the courses.)

• This program thus followed a pattern common to many federally-funded workplace education programs: The initial proposal cites the kinds of specific job-related goals perceived to be required by the funder . . . As the program progresses, stakeholders find that those initial goals might not be realistic or relevant, given changes going on in the company and learner interest in broader knowledge transferable to many different contexts. . . Assessment tools don't fully capture these evolving goals. . . A core of highly-motivated learners succeed while many others drop out or stagnate. . . And supervisors feel left out of the goal-setting process and aren't sure how the program helps production. These are problems common in programs in which stakeholders are new to workplace education. They might be avoided through a more inclusive and systematic goal-setting process. (See "Goal-setting and ongoing communication among stakeholders" below.)

• Despite these problems, the program had positive impacts on learners and on the company, even if those impacts were not quantitatively defined or the ones originally anticipated.

Lessons learned about the components of an effective program

Goal-setting and ongoing communication among stakeholders

• The program experienced an ongoing tension between the demands of "production" and those of "education." If forced to choose between paying attention to the education program or production, managers, supervisors, and learners tended to give priority to production. Education staff in turn desired greater input and support from managers and supervisors and regular attendance from learners. This tension is common to most workplace education efforts.

• In the program's early stages, management helped education staff define job-related comunication and math needs to focus instruction on. As the company responded to increased production demands, that input decreased, and instructors looked increasingly to learners to define course content.

• Supervisors tended not to play an active role in program planning. This led to problems, including (1) supervisors feeling "in the dark" about the program, (2) instructors feeling "in the dark" about what supervisors needed, and (3) learners sometimes feeling their supervisors preferred that they stay at work rather than go to class.

• Due to a limited staff development budget and the fact that instructors tended not to be on-site at the same time, there were limited opportunities for instructors to share strategies and otherwise provide peer-support.

• The above problems of communication among stakeholders are common to workplace education programs. Such programs tend to operate on the assumption that education can simply be "added on" to an organization (rather than be integrated with it) and produce positive results on company operations. While an understandable strategy (especially for those new to the idea of employee basic skills education), it generally doesn't ensure the clear and ongoing communication among all stakeholders which is

needed. Such communication would ensure realistic, commonly-understood goals and a way to monitor progress and continually fine-tune the program. This "team" approach borrows concepts from quality management processes now commonly being adopted by U.S. companies.

Curriculum development

• Instructors initially concentrated on particular job-related communication and math needs identified in the upfront needs assessment. As those topics were covered, instructors relied primarily on learners to identify additional learning objectives. The resulting instruction focused on broad skills and knowledge judged by instructors to be tranferrable by learners to various contexts where they were called on to use English and/or math.

• Both management and the education providers came to recognize the need for educators to have the flexibility to respond to actual learning needs identified by stakeholders at the site level.

• Instructors faced a number of obstacles when they tried to gear instruction solely to specific job-related uses of English and math. These included the facts that many learners could do their jobs without knowing much English and it was often difficult for instructors to get access to company personnel to define job-related objectives.

• Some instructors had more relevant experience and expertise than others. The quality of instruction thus varied from instructor to instructor. Staff development activities are necessary to ensure that all instructors use the most appropriate instructional strategies. Those demonstrating particular expertise might serve as resource persons to other instructors. As the next phase of instruction will focus on the hardest-to-teach, beginning-level learners, instructors need to be especially well-prepared.

Assessment

• Staff used a mixture of assessment tools for identifying learner needs and progress. Well-organized instructors used pre- and post-"quizzes" in each class to clarify what was learned. Each instructor rated learner ability in several skill areas at the end of each term.

• The resulting data were used primarily by instructors and learners to enable them to gear instruction to learner needs. Results were also shared with management representatives (particularly the personnel director), to keep managers abreast of what was being achieved. Managers were generally satisfied with not only the program's results but with the amount and kinds of information reported to them. Generally assessment results were reported in aggregate, confidential form. Occasionally, instructors would give feedback to the personnel director about individual learners. The personnel director wanted such information to ensure that all learners were in fact doing the work required by the classes. Also, the personnel director considered a learner's efforts in class when considering him/her for a job promotion.

• While instructors were able to develop assessment tools which drew on their prior experience in adult education, many might benefit from additional training in innovative approaches to workplace education assessment. This training should build on the insights which this program's instructors have about creating assessment which generates useful information in a confidential, efficient way.

Staff development

• Most instructors came to the program with extensive adult education experience, and the initial staff training got them off to a good start. They nonetheless needed additional training and ongoing technical assistance to enable them to further develop the expertise they needed to respond to an evolving set of learning needs in this workplace context. This was particularly important for the instructors who joined the program after the initial staff

development workshops were over. This additional support was often not available due to a limited budget for staff development.

• Instructors can be good resources to each other, but in this program they rarely met in the same place at the same time. There was therefore limited opportunity for instructors to share strategies and otherwise support each other.

• The job of providing a high-quality workplace education program is a demanding one. Special care must be given to selecting well-qualified staff and then giving them the training and other technical supports they need to do a good job. This is not unnecessary "handholding;" rather it is the same kind of staff development opportunities available to other professionals. At the same time, given the limited budgets of these programs, education staff must be self-reliant in terms of their own professional development, taking the initiative to track down resources and develop expertise.

Learner recruitment, placement, orientation, and retention

• Attendance in the program was sometimes erratic, especially during a period in 1994 of high demand for production.

• To ensure that learners devote adequate time to the task of practicing what they are learning in class, the program needs to stress (both to learners and management) regular attendance by learners in class and practice of their skills back on the job and outside it.

• Some learners appeared to stagnate and make no progress. This might be due to lack of learner effort, learning disabilities, inappropriate instruction, and/or lack of support for learners to attend class and use their skills outside the classroom. Education staff need to recognize this problem and deal with the causes. Otherwise, "stagnated" learners become frustrated and take up classroom space which others might fill.

Scheduling

• The company required considerable release time for learners to participate in classes. However, this release time, though valuable, is only a fraction of what many learners need to make progress.

• Class schedules sometimes conflicted with production schedules, making it hard for workers to attend classes.

• Programs need to develop strategies for encouraging and enabling learners to put in more time practicing their skills in and outside class (both on and outside the job).

Facilities

• The company provided comfortable classroom facilities. However, it might also consider adding some kind of "learning resource center" (perhaps closer to the shop floor) which encourages all employees to participate in self-improvement activities and shows a clearer connection between work and education.

Evaluation

• While the program did considerable formal and informal evaluation, evaluation (that is, goal-setting, monitoring of progress, and "continuous program improvement") should be more consciously built into meetings of the partnership team and day-to-day interactions among learners, instructors, and supervisors.

Dissemination

• Stakeholders might consider taking a more pro-active role as disseminators of the experience gained in this program. In addition to sending in project reports to ERIC and similar clearinghouses, stakeholders might share their experience in conferences of educators, employers, unions, and policy makers and become advocates for high-quality workplace education.

Future options for this program

- As this program continues under company funding, stakeholders should take the time to learn from the valuable experience of this federally-funded effort. By reviewing this report and other feedback, planners might see the benefits of, for example, involving supervisors more actively in planning and supporting the program, being clear about what stakeholders can reasonably expect from the program, and encouraging learners to practice what is covered in the classroom.

- Program planners might also look for additional resources to support the program, making the argument that investment in such programs benefits not only the company and individual workers but the larger community, as well.

PURPOSES OF THE FINAL PHASE OF THE EVALUATION

Overall purposes of the evaluation

As agreed in the evaluator's September 8, 1993 action plan, the primary purpose of the evaluation is to provide information which stakeholders can use on an ongoing basis to (1) clarify program goals and outcomes, and (2) decide whether to continue investing in the porgram and -- if so -- how to improve it.

The evaluation is also to serve secondary purposes of enabling stakeholders to (1) further develop their expertise in planning of workplace education programs, (2) develop their expertise in team decision-making, and (3) develop evaluation tools which they and others can use in other workplace education programs.

Initial round of evaluation activities: October 1993

In October 1993, the evaluator conducted a first round of evaluation activities. He gathered information primarily through interviews with Mercy College staff and with Semi-Alloys management representatives to answer the following questions:

1. Who are the stakeholders in the project?
2. What do those stakeholders expect the program to achieve?
3. How will stakeholders know whether those expectations have been met?
4. What resources have been put in place to date?
5. What in fact has been achieved with those resources so far?
6. What factors are contributing to program success and what factors are impeding progress?
7. What steps might be taken to strengthen the program to ensure future success?
8. What steps might we take to establish a useful evaluation system?

The evaluator summarized the information gathered related to those questions, along with his recommendations, in a preliminary report submitted to the project director.

Interim phase of evaluation activities: May-June 1994

During May 1994, the evaluator conducted a second round of data-gathering activities. These included interviews with managers, the project director, five instructors, and learners, as well as observation of four classes and review of project documents. In June, he prepared an interim report and submitted it to the project director.

This interim phase was to collect information about the intervening six months of program activities to answer the following questions:

Questions to be answered in interim evaluation

1. Have stakeholders' original expectations for the program changed (and, if so, in what ways)?
2. What has the program achieved so far, in terms of anticipated outcomes and unanticipated ones?
3. What are the strengths and needed improvements of various program components?

Final phase of evaluation activities: December 1994-January 1995

In December 1994 and January 1995, the evaluator returned to Semi-Alloys to gather a third round of data focusing on essentially the same questions covered in the interim phase, plus a fourth question, as shown below:

Questions to be answered in final evaluation

1. Since the initial evaluation, have stakeholders' original expectations for the program changed (and, if so, in what ways)?
2. What has the program achieved, in terms of anticipated outcomes and unanticipated ones?
3. What are the strengths and needed improvements of various program components?

4. If Semi Alloys continues the program with its own funds, what actions should be taken to ensure an effective program?

The fourth question was added because the company had decided to continue funding a modified version of the program after the federal funds ended in late 1994.

HOW INFORMATION WAS GATHERED AND ANALYZED FOR THE FINAL EVALUATION

The evaluator gathered information through the following activities:

- Review of initial and interim evaluation reports (12/5/94)
- On-site interview with project director, to review project documents (12/7/94)
- Group discussion with "partnership team" (four management representatives) (12/7/94).
- Telephone interview with project director Lou Lopilato (12/15/94).
- Telephone interview with instructor Joyce Fish (12/28/94).
- Telephone interview with instructor Nancy Esparta (12/28/94).
- Review of individual assessment documents prepared by instructors in fall 1994 (1/20/95).
- Observation of two beginning-level classes taught by instructor Sally Fagan (1/23/95).
- Group discussion with participants in one beginning-level class (1/23/95).
- Interview with instructor Sally Fagan (1/23/95).
- Interview with two company supervisors (1/23/95).
- Interview with company personnel director (1/23/95).
- Follow-up interview with project director Lou Lopilato (2/17/95)
- Follow-up interview with personnel director (2/21/95).

During February 1995, the evaluator compiled all of the data gathered through the above activities, organizing it according to the above four "Questions to be answered in final evaluation." He reviewed the data to note trends, discrepancies, and key issues. He summarized those findings and added his own interpretations to produce the following report.

INFORMATION GATHERED
AND
EVALUATOR'S INTERPRETATIONS

Question #1: Since the initial evaluation, have stakeholders' original expectations for the program changed (and, if so, in what ways)?

What the sources said

Initial goals of management and education provider

- The project proposal indicated that company management wanted the project to (1) produce specific reductions in defects, use of interpreters, miscommunications with security guards, and unexcused absences, and (2) increase the promotability of two specific employees and the grade levels of each participant.

- In the early months of the project, management and the project director cited generally the same kinds of goals, although they weren't as specific in providing the kinds of numerical targets cited in the proposal:

  -- increase company productivity,
  -- help learners to qualify for promotions,
  -- improve learners' standard of living through better communication.
  -- improve learners' self-esteem
  -- prepare workers to participate in the ISO 9000 certification process;
  -- enable learners to use the English required on their jobs (e.g., security guards should be able to understand and record phone messages in English).

How goals evolved to a mix of "academic" and "applied," "job-related" and "non-strictly-job-related"

- Through the life of the program, learners consistently cited a mix of job-related and non-strictly-job-related motivations. Instructors were willing to try to develop instruction which

met whatever reasonable goals were set by management and workers. Instructors did what they could to gather information about learners' job-related needs. This information was collected from management representatives and, eventually, from learners themselves.

• The result in both the ESL and math classes has been a mix of fairly traditional "academic" topics (e.g., "grammar," "pure" math) and "applied" uses of literacy and math. The "applied" uses included job-related applications and non-strictly-job-related English. Over the life of the program, instruction tended to focus more and more on non-strictly-job-related applications. This was because (1) learners tended to require little English on their particular jobs and they were able to cover those uses in the early rounds of classes; (2) to avoid repeating the same exercises over and over, instructors sought new uses of English to focus on; learners identified mostly non-job-related topics that they wanted to learn; and (3) management was very busy responding to increased production demands; they had less time to give to giving input into the ESL classes; instructors concluded they had to look more to the learners for learning objectives than to management.

• Over the life of the project the result has been a mix of job-related and non-strictly-job-related uses of English and math, as shown in the examples below:

<u>English</u>:

<u>Job-related English</u>:

-- Students writing about problem situations they encounter at work (e.g., "My friend at Semi-Alloys, who didn't get a promotion");

-- Students performing a role play in which a new worker asks questions of veteran workers;

-- Students discussing the concept of "negativity" and its effects on the workplace;

-- A modified cloze exercise in which learners use various prepositions to fill in the blanks in a passage about a typical day in the life of a Semi-Alloys employee;

-- A research assignment in which learners interview their supervisors to ask whether they have observed any improvements in the learners' English;
-- A written pre-test in which learners are to write short answers to printed job-related questions (e.g., "Do you work in the Combo Room?" "Does your supervisor speak Spanish?")
-- A written pre-test in which learners fill in blanks in job-related sentences with correct forms of verbs (e.g, "This machine (run) _____ out of paper, do you know where there is more?" "They promised to raise our salaries. We (look) _____ forward to that for a long time.")

Non-strictly-job-related English:
-- Written tests in which learners fill in blanks in non-strictly-job-related sentences with correct forms of idioms and verbs (e.g., "When he was disrespectful in court, the judge _____ him." "There's a lot of _____ at the Motor Vehicle Department." "His sneakers (wear) _____ out a long time before he bought new ones.")
-- Discussion of idioms and other uses of language found in daily newspapers.

Math

Job-related math:
-- Measuring the area of corrosion on a lid to determine whether it is of acceptable quality.
-- Calculating salaries of company employees;

Non-strictly-job-related math:
-- Calculating the amount of carpeting to order for a learner's house.
-- Helping learners to understand the math homework which their children bring home.

Arguments for a "mixed" approach

• Instructors tend to feel that the inclusion of non-strictly-job related uses of English and math is appropriate, for several reasons:

* Instructors tend to feel they don't have sufficient access to the workplace to really understand what job-related uses of English and math are useful to focus on.
* Some learners are at so low a level of English ability and perhaps literacy in their own language that instruction which focuses on relatively complex job-related uses of English would be far beyond their abilities.
* Many of the learners perform jobs which require little written English or math.
* Learners actually are motivated by a mix of uses, not just job-related. Instructors feel they need to respond to what motivates the learners, so they will see the instruction as relevant and keep coming back.
* There are at present relatively few incentives (e.g., job promotions) given to learners even if they do improve their English or math skills.

• Managers note that, although it is their hope that all employees will eventually be able to participate actively in making decisions about their jobs, most of the current ESL students do not at present participate in team meetings. Students are thus only beginning to be involved in the changes going on in the company.

• One instructor noted that strengthening learners' self-esteem is still very important, as they need encouragement to take risks and ask questions. This should be done through activities which respect -- and build on -- learners' interests, some of which might not be strictly job-related.

Management's changing expectations

• One instructor and several managers noted that managers' expectations for the program became more realistic as they gained experience.

• Managers noted at the end of the program that they had, over the life of the program, come to the conclusion that a strictly-job-related curriculum was not relevant or desirable in this context. They saw a value in helping learners learn how to

use English in their lives not only on the job but outside it, because that would encourage them to practice using English in the many contexts they operate in.

• Managers also recognized that the company had gone through many changes in the eighteen months of the project and that those changes likely had an impact on productivity and communications within the plant. They recognized that it would thus be futile to try to use defect rates and other job-related measures as clear indicators of the education program's impact.

Evaluator's interpretations and recommendations

• Instructors tried to respond to the original job-related expectations of the funder and other stakeholders. However, they recognized relatively early in the program that -- for instruction to be relevant -- they needed to respond to learners' interests in learning non-strictly-job-related English and math, as well.

• This appears to be a reasonable strategy which responds to both the job-related interests of stakeholders and to the personal motivations of learners. This is especially appropriate given the limited English and math demands placed on most learners on their jobs at present, the limited incentives given to workers to use English, and the limited access instructors had to the workplace to identify more job-related focal points.

• While learners' motivations tended to be consistent throughout the program, management appeared to shift from expecting specific job-related outcomes to seeing a value in including both job-related and personal uses of language in the curriculum. Managers felt this would make the classes more interesting to learners and encourage them to use English both on and off the job.

Question #2: What has the program achieved, in terms of anticipated outcomes and unanticipated ones?

What the sources said

Improvements in learner skills

- In most of the classes, most learners appeared to make progress in terms of developing English and/or math skills they can use on the job and off. This is due to the dedication and creativity of instructors (who tried to make instruction lively and relevant), to learners' own efforts, to the release time and classroom facilities provided by the company, and to the relatively higher educational backgrounds of some learners.

- Learners in the lowest-level class appeared to make the least clear progress. This is due to a number of factors, including the fact that these learners have a high job attrition rate. They also came to class with very little knowledge of English and perhaps limited education, literacy, and study habits in their own language.

Impact of new skills on workplace

- While many learners appeared to make progress in the classroom, it is not clear whether and how they are using those new skills back on the job. Both management and the project director acknowledge that "hard data" about such impacts are hard -- and perhaps impossible -- to come by. Complicating matters is the fact that, during the period the classes were underway, the company has initiated many other changes (e.g., increased production schedules, new production systems, an increase from 300 to 400 workers) which have impacted productivity. Finding a clear correlation between participation in the education program and productivity was thus not feasible.

- The primary evidence of the program's impact on worker job performance is some anecdotal feedback from instructors and management. For example, some workers are now reported to be more willing to speak up, some security guards are now able

to speak and write English better, and some maintenance personnel are now able to better deal with problems. One of the two employees cited in the project proposal as particular candidates for job-promotions did in fact get a promotion; two other learners not named in the proposal also qualified for promotions. The personnel director said that the fact that those workers were showing an effort to improve themselves in the education program was viewed favorably when those workers were being considered for promotion. This demonstrated effort was, perhaps, as important as any demonstrated improvement in English-language ability.

• Several more-advanced learners stressed the need to be able to read constantly-changing work orders and procedure manuals. They felt that their class helped them do so.

• The program also produced other results not included in the original goal statements. For example, through cooperative learning activities, some learners showed leadership by reaching out to newly-arrived immigrants from other ethnic groups; this resulted in new friendships across the ethnic groups in the classroom. (E.g., Latino learners made friends with Vietnamese co-workers.) It appears that most workers felt an increased sense of gratitude toward the company for providing this educational opportunity.

Managers generally satisfied with program impact on workplace

• Management apparently isn't overly concerned about producing clear numbers showing program impact on productivity. Instead management appears to see the ESL and math classes as one part of a larger corporate training and organizational-development effort. Given the many demands now being placed on managers, it appears to be difficult for them at this stage to neatly "fit" learners' new skills into these larger changes going on. Higher-level management, however, seems confident that the classes are a good thing and an asset -- even if not yet a clearly-defined one. Perhaps the clearest indication of management's satisfaction is the fact that the company will continue the program with company funds now that the federal grant has expired.

Supervisors less clear regarding impact

• Supervisors seem less clear about what the program has achieved. They stated that they generally didn't know what was going on in class and saw little or no change in the job behavior (i.e., use of English on the job) of participating workers. They also said they weren't kept informed about what their workers were doing in the class. The supervisors said they would be pleased to give input to and get feedback from instructors, but that such opportunities hadn't been provided to them. (On the other hand, management had apparently invited supervisors to attend a meeting about the education program, but supervisors had resisted coming. Education staff also had generally wanted to communicate with supervisors but felt there were inadequate channels for doing so.)

Job promotion not feasible outcome

• While some learners and Mercy College administrators initially hoped that the classes would help the learners improve their job security and qualify for promotions, this appeared to happen for only three learners. This might be an unrealistic expectation, given the limited amount of instruction provided so far and the fact that job security is affected by many factors other than workers' English and math skills.

General learner satisfaction

• Learners generally appeared to be happy with the classes and hoped that they would be continued. They see the classes as an opportunity for learning unavailable to them (or difficult to get access to) elsewhere.

Positive impact on learner self-esteem and understanding of U.S. culture

• One instructor observed that the program probably helped learners recognize what they already knew and become confident that they could learn English and do something different from their day-to-day routines. This was evidence that at least those learners had improved in their self-esteem,

which was one of the goals cited most commonly by all stakeholders.

• One instructor also observed that many learners had learned what is "culturally acceptable" in the U.S. and in the workplace. This was another example of the program meeting an original goal (i.e., "improving learners' standard of living through better communications").

Evaluator's interpretations and recommendations

• Stakeholders' expectations evolved over the life of the project, but were often too broad (e.g., "improving self-esteem"), not relevant (e.g., preparing workers to use English to participate in the ISO 9000 process when they actually could do so in Spanish), or seen to be in conflict with funders' guidelines (e.g., when instructors had exhausted the job-related topics relevant to learners, they felt constrained from turning to other useful topics taken from learners' lives outside the job).

• Despite the fact that the project thus had to try to hit a sometimes-unclear multitude of "moving targets," it appears that overall the program has met stakeholders' expectations. That is, those learners who stayed with the program tended to improve their self-confidence and interest in learning, as well as their abilities to use English on and off the job.

• The program also produced other results not included in the original goal statements. These included improved cooperation among ethnic groups and increased loyalty to the company. These might be made more explicit in future program goal statements and used as indicators of program impact.

• Despite these positive outcomes, probably more would have been accomplished if (1) learners had given more time to practice in and outside the classroom (both on the job and off); (2) instructors had more time for specialized training, interaction with the worksite, and interaction with learners; and (3) management representatives were more directly involved in giving input into curriculum content and ensuring

that learners could use their new skills back on the job. (These issues are discussed further in Question #3 below.)

Question #3: What are the strengths and needed improvements of various program components?

Goal-setting and ongoing communication among stakeholders

What the sources said

Tension between "production" and "education"

- Instructors acknowledged that company management provided valuable information to the curriculum developer at the beginning of the program. She and other instructors used this information to develop an initial round of job-related instruction.

- However, instructors soon learned that the plant was undergoing major changes and saw from learner reaction to the initial lessons that many of the initial job-related objectives were not sufficiently relevant to learners' actual interests. Instructors thus wanted to be able to communicate with company representatives on an ongoing basis.

- As the program progressed and original teachers left and new teachers were added, most instructors were not part of that initial needs-identification process. While some had a brief tour of the plant, many didn't have even that. Those "latecomer" instructors had little or no time to get to know the worksite. They thus operated "by the seat of their pants," using intuition and learner input and occasional input from other instructors to define job-related objectives.

- Instructors were guided by a policy of keeping a low profile and not inundating management with requests. The company personnel officer was appointed as "point person" who was to receive and respond to instructor requests. However, instructors apparently felt this arrangement -- though welcomed -- didn't adequately meet their needs for ongoing input and support from management.

• The result was that, throughout the life of the program, instructors tended to feel they didn't have enough opportunity to interact with company representatives input from company representatives to define relevant job-related objectives (e.g., what supervisors want, specialized work-related vocabulary). Instructors felt that this blocked them from providing the job-related curriculum required by the funder.

• Some instructors noted that, despite frequent invitations, management representatives didn't visit the classes to see what was going on and show their interest in the program.

• Not wanting to impose on management representatives to ask for more input from them, instructors gradually came to rely primarily on their own common sense, ingenuity (e.g., using materials found on company bulletin boards), and input from learners to define job-related learning activities.

Input provided by management

• The project director felt that managers had been cooperative "across the board" and that other programs should set up a similar operating precept of "being invisible except where necessary." As evidence of the company's cooperation, the director cited the facts that management provided plant access to the curriculum developer during the early planning stages, and that the company had rented a space, converted it into an "upbeat learning environment," and paid learners for the time they spent in class as well as travel time to and from class. The company also joined with the education provider to provide coffee before each class session, a small thing which nonetheless served as an incentive and an opportunity for creating bonds among learners.

Role of supervisors and co-workers

• Several instructors and learners said (and managers also admitted) that learners didn't always get the support they needed from supervisors and co-workers to attend class. It wasn't so much that those supervisors and co-workers opposed the classes per se; rather,those supervisors and co-workers saw

the classes as in conflict with production goals. That is, the rest of the department or work team was affected when one or more of its members left to attend class.

• Supervisors tended to feel left "out of the loop," not understanding what was going on in the classes. (One said he hadn't even been told about the classes until a day before they began. He also said he had no control over who goes to the classes, with selection being based primarily on "who wants to go." Another supervisor said she didn't know what level of classes her four workers are placed at.) Supervisors said that their workers appeared not to be doing anything differently back on the job despite being given the opportunity to go to class. Some said they had given job documents and other information to instructors, but had no idea whether/how those materials were used. One supervisor stressed that workers need to be able to respond to constant workplace changes (e.g., in written customer specifications), and to be able to speak up (and record in writing) and identify problems as they emerge. He felt that currently too many workers keep their mouths shut rather than say anything about problems. Too many workers rely on translators, and they miss out on job promotions available to English-speakers.

• One supervisor said she takes care to write workplace procedures in the plainest possible language, to enable as many workers as possible to understand.

Communication among instructors

• Several instructors cited the need for greater coordination among instructors. A coordinator could keep tabs on progress in the various classes, help instructors deal with problems, and submit and follow up on requests to management (e.g., for job materials and photographs). As it worked out, instructors tended to operate in isolation from each other and couldn't do all the follow-up work they needed to do with management.

Evaluator's interpretations and recommendations

• This program faced a dilemma common to most current workplace education programs: how to respond to both

production demands and the needs of the education provider. That is, managers, supervisors, and learners had limited time during normal working hours to give to education-related activities; educators needed ongoing input from those stakeholders, support for workers to use their new skills back on the job, and adequate classroom time with learners. All parties tried to accomodate these conflicting demands, with various strategies and degrees of success and frustration.

• A number of factors were cited as contributing to this tension between "production" and "education":

1. It appears that company representatives are very busy with other job demands. (The company experienced a major upswing in demand for its products just as the education program got underway. Workers began putting in more and more overtime, and new workers -- particularly Asian immigrants with limited English proficiency -- were hired to respond.)

2. It also appears that, being new to this idea of workplace education, management might have assumed that they had already given enough time to the curriculum development process. They had, after all, given upfront input to the curriculum developer. They might not have understood that, if the curriculum is to be job-related (as the funder required), instructors need to have ongoing access to the workplace to continually define work-related learning needs and opportunities as they emerge.

3. It appears that higher-level management and Mercy administration were generally satisfied with the quality of instruction and didn't see the need for more intense communication between instructors and plant personnel.

4. The education provider might not have fully understood this need, either, and have assumed that professional adult educators should be able to rely on their experience to provide an appropriate curriculum. In such a case, it would be natural that ongoing instructor access to the workplace was not adequately negotiated when the program was initially planned.

5. One instructor noted that the company's "code of secrecy" about particular products might inhibit learners and supervisors from bringing specific job-related documents into the classes.

6. It might be that the job-related English needs of learners were in fact very limited and that the initial curriculum development process uncovered all or most of them. To invest time in digging up other job-related needs was not a productive use of anyone's time.

7. The classes were held in a building one block away from the production facility. Because of the dust-sensitive nature of the computer-part product, many employees worked in sealed-off areas inaccessible to outsiders. For these reasons, instructors didn't have easy access to the plant for informal observation, chatting, collecting of work-related documents, etc.

• To break that communication logjam, the program might establish the role of a coordinator who can supervise classes and serve as a liaison to management. Such a role requires someone who knows both adult education and how to operate in workplaces. The program might also institute the activities described in Appendix A. These would facilitate communication among instructors, management, and learners and aim at the following objectives:

1. Management representatives would better understand the potential and needs of the classes and learners;

2. Management representatives would thereby take greater ownership for the program and find ways to ensure that learners can make the best possible use of their new skills.

3. Instructors could get better access to management representatives for guidance on curriculum content.

4. Learners would get practice communicating with management representatives.

5. Learners and instructors would feel their efforts are being recognized and valued by management.

Curriculum development

What the sources said

The need for more flexibility when setting goals

- Virtually all stakeholders concluded that the original job-related focus required by the funder was too restricting. It didn't reflect the realities of workers' job roles and abilities or the broader interests of learners and management. By the end of the program, managers and education staff were saying that the curriculum should focus on both job-related and non-strictly-job-related uses of English, to enable them to practice both on and off the job. Learning how to use the TV Guide or discussing favorite recipes were cited as examples of helping learners to develop skills (e.g., locating information on time schedules, recording information, following written directions, measuring) they could use both at home and at work. One higher-level manager advised workplace education efforts to not adhere too strictly to job-related objectives "because it sterilizes the learning environment and detracts from learners' interest to participate . . . You go stale mighty fast."

Obstacles to creating job-related curricula

- Instructors tried to make instruction as job-related as possible. However, they tended to feel stymied by a lack of communication with plant personnel about what workers needed on the job. (See "Goal-setting and ongoing communication among stakeholders" above.)

- Instructors also found that learners came from many different job categories. It was therefore difficult to find job-related uses of English which they had a common interest in.

Instructor strategies for defining relevant learning activities

- Instructors apparently decided to rely on their own skill and learner input to develop as many job-related activities as

possible. However, instructors have also woven non-strictly-job-related uses of English and math into the curriculum, for the reasons cited under Question #1 above. At the beginning of the final round of classes, one instructor concluded that the learners were the best judges of what was relevant to them and laid out a range of topics which the group might focus on; the participants chose several of them, and the result was a mix of job-related topics and such non-strictly-job-related ones as "basic English" useful in any context. Another instructor concluded that the learners in the highest-level class had both the English ability and a sensitivity about workplace English demands to identify focal points which lower-level learners could also benefit from.

• The result was -- for some classes -- an appropriate mix of activities which, while not all strictly-job-related, were nonetheless helping learners to develop skills and an interest in ongoing learning which was transferable to many different contexts. One instructor developed activities focusing on job-related concerns (e.g., getting a promotion) which are of concern to most workers, regardless of their specific jobs.

• The project director felt that the best formula was for management to set broad goals and then for learners (with guidance from instructors) to develop more-specific ones in the classroom as needs emerged. Experience indicated the need to be flexible and not rigid vis-a-vis learning objectives.

• Several instructors observed that instructors need to be given the freedom to choose what to focus instruction on. However, one instructor also noted that instructors have to understand good practice if they are to be able to make wise choices about what and how to teach.

<u>How instructors organized instruction</u>

• Some instructors packaged their curricula in concise, clear lesson plans. These are products which can be used by other instructors in the future, whether at Semi-Alloys or elsewhere. As such, they are in keeping with the dissemination objectives of the grant.

• In come cases, however, it appears that instructors might not be sufficiently systematic in their approach to curriculum development. For example, some instructors appear to be bringing in too many unrelated activities (e.g., phonics exercises developed for children) in an attempt to find something that works. The result is a lot of activity but perhaps not significant learning.

• All instructors use "home-made" materials, presumably to focus on instruction of immediate relevance to learners which is not readily available in existing texts. However, the quality of some of these teacher-made materials could be improved by use of good word-processing programs which could produce better-looking and more-readable text. This, of course, would require that teachers have access to such equipment and have the time and expertise to use it.

• One problem faced by instructors is that of how to respond to a range of educational levels, language backgrounds, and job classifications in one class. For example, some Vietnamese learners who have learned "book English" tended to be able to read and write better than they can speak English. The opposite was true of some Latino learners, who had had more access to oral English but little formal education. One instructor noted the need to develop assessment tools which identify these diverse needs.

• Examples of sound educational practices observed:
  -- A mix of group and individual work in a single class period;
  -- Instructors giving individual feedback to learners;
  -- Focusing on problems identified by learners;
  -- Allowing learners to develop their own solutions to problems, then compare the strategies they used.
  -- Having learners work in pairs to review a written passage, then respond as a group to a discussion question about the passage. In this process, they are reading, interpreting, speaking, problem-solving, and working in a team.
  -- Using "free writing" activities in which learners review a picture, interpret it, and then write about themes or problems portrayed in the picture.

-- Instructors having the freedom to focus on various learner needs and interests as they are identified. For example, grammar might be the focus for a while, then vocabulary, then writing. Or a session might focus on a particular current event, a holiday, or a video about a topic of interest.

- Examples of questionable activities observed:
  -- Jumping from one topic to the next with no clear direction;
  -- Beginning a discussion, but cutting the discussion off when one participant couldn't respond; (Why not ask another learner to try and/or perhaps help the one having trouble?)
  -- Spending a lot of time on irregular verbs and the spelling of English words out of context when the emphasis should be on oral acquisition;
  -- Practicing giving directions out of context and with no clear reason;
  -- Using vocabulary which is obscure, not related to everyday uses which learners are likely to encounter, or not culturally-relevant for particular immigrant groups.
  -- Using pictures developed for children.
  -- Using printed materials which are visually hard to read or illustrations which are unclear or depict situations not familiar to learners.
  -- Using written tests and instructional materials when the focus of instruction (especially in the beginning-level classes) should probably be oral English.
  -- Allowing learners to give each other answers during tests.

Learner difficulty understanding assignments

- Some learners said they would be willing to do more homework, but didn't always understand the instructor's assignments.

Evaluator's interpretations and recommendations

- In the strongest classes, instructors combined their own considerable prior experience and creativity with the motivation and input of learners to create instruction which is

relevant, systematic, and effective. In some cases, classes appeared to be less so, with a tendency toward relying on a hodgepodge of instructional activities not adequately geared to learners' real needs or using the most effective methods. (Learners in such cases get bogged down in meaningless details and don't focus on meaningful uses of the language in real contexts.) It appeared that the former scenario was more common than the latter, but the latter case was frequent enough to warrant attention.

• Where the latter tendency exists, this might be due to a lack of teacher experience and preparation. Instructors in such a program should be experienced working with adult basic education students and in ESL situations. Ideally, they would also have experience working in workplace settings, although in this case such professionals with workplace experience were not generally available. Instructor preparation would be carried out through formal training workshops, availability of resource materials for self-study, ongoing regular teacher-sharing opportunities, teacher access to the workplace and management representatives, and supervision from someone experienced in workplace settings. More-experienced instructors should be seen as resource persons for newcomers. (See "Staff development" below.)

• Because the next round of classes (to be paid for by the company) will focus on the lowest-level learners, special preparation should be given to instructors to enable them to help this especially-hard-to-serve group. This preparation should tap into the considerable experience which successful instructors have already had working in this company context.

Assessment

What the sources said

A mix of assessment instruments used

• Staff correctly assumed early on that standardized tests were, at best, suitable tools for placing learners at different skill levels. To provide assessment information more directly related to this program's context, instructors developed many

different tools for assessing learner progress, including (1) daily pre- and post- mini-quizzes (to help instructors and learners get a quick sense of learners' abilities vis-a-vis the day's learning objectives), (2) more-formal tests given at the beginning and end of a course, and (3) end-of-term ratings (using a 7-point rating scale) of mastery of standard pronunciation, language structures, listening comprehension, fluency and oral production, vocabulary, and written pronunciation.

How assessment information was used

- Instructors compiled results of these instruments into various aggregate and individualized records. These records were transcribed into a computer database and made available to company management. Instructors would also summarize what was going on in the classes in informal discussions with the personnel director.

- For the most part, individualized scores were reported in confidential form, using a code to disguise the identities of individuals. In some cases, instructors "named names" when talking with the personnel director about the progress of particular learners. The personnel director said that she took positive reports about student efforts into account when making decisions about job promotions for those workers. As the company prepared to pick up funding of the program, the personnel director stated that she would like to have information about individual learner progress, to ensure that learners were in fact giving a good effort.

- These assessment activities appear to have been of use primarily to instructors and learners. Instructors used the results to help them set directions for classes and individuals. Learners in at least some classes seemed to welcome the challenge of the assessment activities and the feedback they provided about their progress and needs.

- The original plan for compiling these records into Personal Growth Plans to be maintained by the company's personnel office proved to be cumbersome and impractical and was dropped.

• While data and documents were compiled for each class, that information apparently was not shared among teachers across classes.

• Learner progress was conveyed to management in regular meetings of the partnership team. Managers were reported to be satisfied with the assessment tools used.

Need to clarify best ways to do assessment

• Instructors said they would have welcomed additional technical assistance in the area of assessment instrument design. Although they lacked guidance on how to develop tools for assessing job-related skills, they used their own prior experience in test-design to develop tools which were, for their purposes, adequate.

• Instructors faced some problems deciding on the rating scales to use and how to be consistent in what was being measured in the pre- and post-tests. One instructor felt that the scales didn't really capture what learners were achieving (or not achieving) over the five terms. In the fifth term, she jettisoned the scales and relied instead on personal evaluations written in narrative form. In those evaluations, she described what learners had done, areas in which they improved, areas needing more work, and whether the learner was placed at the right level.

• One instructor first had learners use practice versions of the pre- and post-tests, to minimize learner fear and confusion about the test itself. She concluded, however, that learners who -- largely due to lack of formal education -- were unfamiliar with testing procedures tend to have a strong aversion to tests and don't do well on them as a result. She feels that freer forms of assessment (e.g., observation of learners' performance in free writing and conversational activities) were more appropriate. She acknowledged, however, that such assessment requires experienced ESL instructors.

• One instructor noted the need to develop assessment activities which would demonstrate learners' abilities in specific areas (e.g., reading, writing, speaking, listening), so that instruction could focus more directly on their particular needs. This was especially important in classes in which (due to particular language or educational backgrounds) some learners were strong in reading skills but weak in oral skills -- and others were the opposite.

• The same instructor suggested that tests be based more directly on contextual situations, rather than using vocabulary and concepts "out of the blue," not related to particular situations meaningful to learners.

• One informant noted that measuring job-related impact is difficult, requiring time of several stakeholder groups, and requiring particular expertise. All of these costs were not covered in the project budget. If funders want such information, someone has to be willing to pay for it, she said.

Evaluator's interpretations and recommendations

• For their own purposes, several instructors developed a number of assessment activities to measure learner needs and progress. In future such programs, all instructors should have opportunities to review the tools others have developed, so they can borrow from each other and give each other feedback.

• The instructors' assessment tools produced information which, while relevant to instructors, might not capture the interest of management representatives. Managers understandably aren't geared to thinking in "education assessment" terms and are busy with other matters in any case. To help management representatives understand what the classes are achieving (and might achieve), instructors might invite management representatives to participate in the kinds of activities outlined in Appendix A.

• Future education programs should give special attention to developing appropriate assessment tools which produce relevant information without unnecessarily burdening instructors or learners.

Staff development

What the sources said

Ongoing training and technical assistance needed

- Instructors appreciated the six training sessions provided to them early in the program and said that training was useful and of high quality. However, because some instructors joined the program after those training sessions were over, not all instructors participated in those sessions. Because those "newcomers" in some cases had no prior workplace education experience, they required special training but did not receive it.

- Apparently the budget for staff training was depleted by the initial training sessions, so no additional formal training sessions were planned for instructors. One instructor noted, however, a willingness to participate in training sessions (e.g., attending conferences) without pay.

- Several instructors also said they lacked opportunities to communicate with fellow instructors. Due to the varying schedules of the classes (which were all held in the same room), instructors were rarely in the same place at the same time. They thus had limited opportunities to "train each other" by sharing strategies and asking for help. Again, the lack of staff meetings was apparently due to a lack of money to pay staff to attend them.

Unique demands of workplace education contexts

- Several instructors said that the pool of instructors to choose from was limited because of the relatively isolated location (i.e., isolated from Mercy College), a class schedule which requires travel time to a remote site sometimes at odd hours, and the plant's location in an industrial area unfamiliar -- and possibly fear-provoking or demeaning -- to instructors more accustomed to academic settings.

• One instructor noted that adult education can be a shock to teachers who have previously worked only in school settings. For example, in adult education a teacher might not be able to require homework or expect regular attendance of learners.

Timely payments needed

• One informant noted that those administering the funds for such projects need to be sensitive to the financial needs of part-time adult educators. Long delays in paying salaries can hurt instructor morale.

Staff selection criteria questioned

• One company representative asked how the beginning-level classes could be taught by an instructor not bilingual in English and Spanish (Spanish being the primary language of most participants).

Evaluator's interpretations and recommendations

Instructors need ongoing supports

• It is important for all stakeholders to recognize the unique demands of trying to create a basic education program geared to a busy, changing workplace. Few adult educators -- including many in this project's staff -- have had experience in workplace settings. They thus needed extra guidance -- both initially and on an ongoing basis -- to develop the expertise needed. While the initial training sessions were helpful, they were not in themselves enough. Providing ongoing training, supervision, mentoring, and resource materials should not be seen as "unnecessary handholding" but as legitimate staff development activities. If such supports are normal in other education settings, why not for workplace educators?

• Instructors would likely benefit from the kinds of staff development activities outlined above under "Curriculum development" ("Evaluator's interpretations and recommendations").

Instructors need to be self-reliant

- Instructors need to also keep in mind that company contexts are busy and that staff development resources for such projects are not limitless. While they quite rightly need input from company representatives and supports from their educational institutions, instructors must also have a realistic view of the supports they can expect. Instructors thus need to be self-reliant -- as individuals and collectively -- to ensure that they develop the knowledge and skills they need to do their jobs. This self-reliance includes taking the initiative to track down print and human resources from which they can extract good ideas and develop their expertise.

Learner recruitment, placement, orientation, and retention

What the sources said

Attendance sometimes erratic

- Attendance in classes was sometimes erratic. (This was especially true in the fourth term -- June-August 1994 -- when there was an upsurge in production). Education staff, learners, and managers attributed the irregular attendance to several factors: (1) frequent turnover of employees in some job categories, (2) lack of academic discipline by some learners, (3) conflict with opportunities for overtime, (4) conflict with job duties (especially for some high-skilled employees who played vital roles in the plant) which sometimes resulted in indirect discouragement by supervisors and co-workers who felt production demands were not being met when learners left for class, and (5) content which was too difficult for some learners.

Class spirit good

- The "spirit" of the classes seems to have been good, with no apparent conflict among learners. In fact, there was often considerable peer-support among learners, including among participants of different ethnic backgrounds who otherwise might not have gotten to know each other.

Criteria for placing learners

- Learners were apparently able to be placed in different levels if instructors identified it as necessary, although it was preferred that learners stay in the same classes with the same instructors throughout the program.

- One instructor observed that some learners appear to become "fossilized" and make no progress no matter how long they remain in a class. (For some, this lack of progress might be due to an unwillingness to do homework and otherwise practice what is covered in class.) When she observed this phenomenon, she chose to focus her attention most on those with the greatest potential for making progress. She feels that, to be fair to those who weren't able to get into the classes and to make best use of limited resources, such "fossilized" learners might have to be removed from classes, to make way for others who have greater potential for progress. She feels there should be some way to monitor learners' "readiness" and, if that readiness flags, then they might have to be removed from class to make way for learners who are more ready, willing, and able to learn. One indicator she used for determining readiness was whether a learner asked questions and rephrased things; such behaviors indicated that the learner was thinking about and trying to understand what was being discussed and was interested in learning.

- Several management representatives likewise expressed concern that some learners were not trying hard enough and were "coasting" through classes. These managers wanted clearer evidence from instructors about what the learners were doing in class and wanted some kind of mechanism to remove learners who were not trying hard enough. This would send a signal that the company expected an effort in return for providing this program. It would make way for other deserving employees who hadn't been able to get into the classes previously.

Evaluator's interpretations and recommendations

- Maintaining regular attendance appeared to be the largest problem in this category. This issue should be discussed in

partnership meetings. It should be pointed out that learners will likely not progress much if they don't come to class.

• The activities outlined in Appendix A are possible ways of building communication between the classes and the other plant personnel whose support is needed. This support is needed to ensure that learners can participate to their fullest potential and make use of their classroom learning on the job.

• A mechanism should be put in place to ensure that learners indeed take the classes seriously (i.e., attend regularly, do classwork and homework, etc.) Supervisors should be kept informed about what is going on in the classes, so that they will support learner attendance and encourage learners to make use of their new skills back on the job.

Scheduling

What the sources said

Company provided release time

• The company was committed to allowing learners to participate on company time. This is a significant contribution to the program.

Classes sometimes conflicted with production

• However, as stated under "Learner recruitment, placement, orientation, and retention" above, some learners apparently felt they couldn't or shouldn't attend class (1) due to at least tacit pressure from supervisors and/or co-workers and (2) so that they didn't miss out on opportunities for overtime.

Need for learners to commit more time to practice

• While a generous contribution, the time given by the company is still limited, from a learning perspective. That is, all of the participants -- especially the beginning-level ones -- need much more practice than the limited time given in the classes. One instructor noted that the amount of classroom

time in this program is only half of what a normal adult basic education course would require.

• Learners can expand on this time by doing homework, using the local library, watching English-language TV, getting involved in community activities where English is used, or participating in local adult education programs. However, it appears that only a few learners (especially in the "beginners'" class) actually make these extra efforts. (A few beginning-level learners say they watch "Sesame Street" and similar educational programs with their children and pick up English while doing so.) This appears to be due to a large degree to demands placed on learners' time outside the company (e.g., family duties, second jobs, etc.) Some learners, however, appear not to have developed a sense that such extra effort should be a high priority.

Need to stress using English in the plant

• Several instructors noted that the company doesn't put enough emphasis on encouraging workers to use English. If there is little expectation to use English on the shop floor, they reason, then learners are not likely to actually try using what they are learning in class.

Evaluator's interpretations and recommendations

• To help management representatives understand the need to support regular attendance of learners in classes, the program might carry out the activities outlined in Appendix A. Special emphasis should be placed on creating mechanisms to involve supervisors in setting objectives, monitoring learner progress, and supporting learner use of English back on the job.

• To help learners understand the need to use their skills, homework should be stressed. This homework should be fun and interesting, rather than drudgery. They might, for example, be asked to "do research" to gather words or compile situations they need help with on or off the job. They might "research" resources in their community which they rely on. Or they might compile information about the skills and knowledge

they have developed in various contexts (school, job, home), to weave into personal resumes.

Learners should also be encouraged to use the local library or adult basic education programs. Perhaps a counselor from a local adult education program might meet with them as a group or individually. Or a local librarian might visit them to discuss how they might use their local libraries. The instructor might review with learners some educational videotapes or tell them about adult education programs on local TV.

The company might install some computers and suitable software to enable learners to develop both their basic English skills and computer skills. Because many employees are interested in computers, this would provide a valuable continuing education opportunity.

Such activities can help learners extend the amount of time they give to learning beyond the relatively few hours offered in the classroom. It would also help employees adopt a "learning organization" ethic.

Facilities

What the sources said

Facilities provided by the company

- The company has provided a classroom for the program in a building one block from the production plant. The company made special efforts to upgrade the classroom. New tables, blackboards, etc. were installed, along with a coffee maker.

Other possible facilities

- One management representative said that the company might consider acquiring some computers to enable learners to further develop their basic skills and computer skills, as suggested above under "Scheduling."

Evaluator's interpretations and recommendations

- The program might consider creating a "learning resource room" containing interesting reading materials, reference materials, and perhaps even some computers with appropriate

educational software. To make it easier for learners to use, this room might be created close to where they take their coffee and lunch breaks. A number of other workplace education programs have done this, to provide encouragement and resources for learners to become independent readers and learners outside normal class hours. A local librarian might help program staff set up a modest resource section in the existing classroom to begin with. By setting up such a center, the company will go one step beyond the ESL/math classes toward creating a "learning ethic" (an interest in ongoing learning and self-improvement) within the organization.

Evaluation

What the sources said

The outside evaluator's role

- The function of "evaluation" was left primarily in the hands of the outside evaluator. As described at the opening of this report, he conducted three rounds of data-gathering and prepared three reports (including this final report) which were submitted to the project director. The evaluator was not clear, however, how the reports were used by the various stakeholders, despite making himself available to discuss the reports with any interested stakeholders.

The partnership team's role

- The partnership team also did their own evaluation of the program in their monthly meetings. It appears that this is the point when the project director gave updates to management and, in turn, management gave feedback to the project director about problems (e.g., conflicts between class schedules and production demands) and progress they had observed. Some members of the team also said they had seen some of the evaluator's reports.

Instructors' role

- Instructors did much formative evaluation of their own, constantly monitoring learner progress and interests and making needed revisions in the curriculum. Instructors did in some cases read the outside evaluator's reports. Their response to the reports varied from "right on" to dismay at what they felt was unfair criticism of their work.

Supervisors' role

- Supervisors said they had never seen any kind of report about what was going on in the program. They said they felt frustrated and "out of the loop," not knowing what was being taught or what effort their workers were making.

Evaluator's interpretations and recommendations

- It is not clear whether and how the evaluator's reports were used. They were perhaps seen by some stakeholders as something required by the funder rather than as an important part of project planning.

- It appeared that some stakeholders were not pleased by what they saw as criticisms in the evaluation reports. Others, however, seemed to feel the reports accurately reflected the range of positive outcomes and problems represented in the project.

- In the future, stakeholders might consider rethinking the positive role evaluation might play in helping stakeholders make the decisions needed to keep the program on target. Evaluation can be built into partnership team meetings, instructor reports, feedback sessions with learners, and interactions with supervisors. This is in keeping with the "continuous improvement" approach to management. This is in contrast to more-familiar views of evaluation, which see evaluation more as something to be done by an outside evaluator and as a potential source of embarrassment.

Dissemination

What the sources said

Official plans for dissemination

- The project director indicated that all relevant project documents -- sample curricula, assessment data, and evaluation reports -- would be submitted to the federal funder and to the ERIC system for dissemination, as required by the grant.

Instructors' interest in disseminating their experience

- Several education staff indicated interest in possibly sharing their experience in the project via journal articles and/or participation in meetings of workplace educators.

Evaluator's interpretations and recommendations

What education staff might do

- Education staff should be encouraged to think critically about their experience in the program and share their findings with other workplace educators, especially in New York State and the northeast. Otherwise, others won't likely benefit from the considerable good work done in the project. Nor will project staff be able to build on their experience for their own career development.

What company management might do

- Company managers might also consider sharing their experience with other companies, public policy makers, union representatives, and adult educators. This could be done in letters to policy makers, trade journal articles, trade association meetings, meetings of local business and economic development organizations, local media coverage, etc.

What learners might do

- Successful learners in the program might be encouraged to become advocates for adult education both within the company and outside. Internally, they might promote education to fellow workers. Externally, they might participate on adult education conference panels and other forums where learners speak of their experience. More privately, they might encourage family members and neighbors to participate in lifelong learning activities.

"Giving something back"

- All of these stakeholders have now benefitted from public adult education money. They might consider "giving something back" by sharing their experience and serving as advocates for continued investment in such programs by both the public and private sectors.

Question #4: If Semi-Alloys continues the program with its own funds, what actions should be taken to ensure an effective program?

What the sources said

The company's plans at present

- Management says it intends to continue a modified version of the program (limiting it to beginning-level learners) using Mercy College instructors.

Supervisor suggestions

- Supervisors suggested that, if the program is to continue, they would like to be more involved in contributing to objectives, sitting in on classes, and monitoring progress. They also said the process for selecting program participants should be refined, to ensure that those with the greatest need and motivation be selected.

The need to invest in creating a high-quality program

- One instructor suggested that the company appeared not to understand the need to invest management and supervisor time to ensure transfer of learning back to the workplace. She thus questioned whether the company would be able to sustain the program at a high enough level of quality for it to have a lasting impact.

Evaluator's interpretations and recommendations

The need for careful planning

- In a perfect world, the company would have infinite resources (especially the time of managers, supervisors, and learners) to invest in creating and sustaining relevant learning activities and ensuring that learners are able to use their new skills back on the job and in other life contexts.

- However, the company understandably places priority on production and has only limited resources to commit to ESL education. Given these limitations, the partnership team needs to plan carefully, to clarify what it wants to achieve and the most effective ways of doing so.

- To do so, the team might start by reviewing this report, which draws on thoughtful input from all stakeholder groups over the past eighteen months. As they review this report, team members might jot down comments, and agree on which recommendations to give priority to, which to refine and adapt, and which to set aside. The team might then develop an action plan which clarifies objectives, a timeline, and responsibilities for the next round of education activities.

The need to involve all stakeholders

- As it designs this plan, the team might ask for input from instructors, supervisors, and learners.

Possible additional resources

- The team might also look for additional sources of outside funding (e.g., the NY State Education Department or local economic development agencies). The team could make the argument that the education program helps keep jobs in New York while providing a unique educational opportunity to immigrant adults.

APPENDIX A

Suggestions for Integrating the Education Program into the Workplace Culture

Why "integrate the education program with the workplace culture"?

The following activities are possible ways to improve communication between education program staff and learners and other company stakeholders. This improved communication would:

- Help management representatives and other co-workers to better understand the potential and needs of the program and its participants.

- Help instructors make instruction relevant to the company context.

- Give learners opportunities to practice communicating with management representatives and other co-workers.

- Give recognition to the efforts made by learners and instructors.

These activities borrow from similar initiatives already underway in other workplaces around the U.S.

Possible activities

1. Provide training for supervisors in intercultural communications, to enable them to communicate effectively with employees whose first language is not English.

2. Establish a "clear writing" committee to edit training and other company documents to make them more accessible to employees with limited English skills.

3. Establish a "mentor program" in which ESL students are matched with volunteer co-workers who serve as their "language mentors" ("buddies") on language and culture questions.

4. Establish an "English only" table in the cafeteria where ESL students can sit with fellow students and other co-workers with the understanding that all conversation takes place in English.

5. Sponsor recognition events which highlight the achievements of education program participants. Events could include graduation ceremonies or a "learning celebration" in which selected students speak to co-workers about their achievements.

6. Sponsor intercultural social events in which employees (including education program participants) explain or demonstrate their home culture to co-workers. Such events might include (1) a monthly "special desserts" table in the cafeteria in which employees bring in desserts from their home culture to share with co-workers, (2) a picnic in which employees bring foods from their homelands.

7. Establish an education fund to support program participants who want to go on for further education and training.

8. Establish a student council in which elected learners from various classes discuss program needs and communicate them to instructors and management. This council might also coordinate student involvement in the other activities listed here. Council representatives might also serve on the partnership team.

9. Conduct a focus group with supervisors and instructors, to help them identify how they might best work together to make the program relevant.

10. Ask supervisors to keep a "log" in which they record observations of learner progress on the job, along with problems or suggestions related to the education program. They can periodically share these observations with instructors in person or in writing. (This can be done anonymously, if desired.)

11. Have learners interview their supervisors as part of a learning activity. As a group, learners can formulate questions they'd like to ask supervisors or other company personnel. They then conduct the interviews and discuss their findings with the class.

12. Invite supervisors and other management representatives to serve as "guest lecturers" in a class, focusing on questions developed by class participants.

13. Conduct a pilot project to develop ways to involve ESL students in work teams and other company innovations. This would provide learners with opportunities and motivation for using the English they are developing in class.

14. Establish a journal or newsletter to which learners can contribute articles. This can be circulated to other personnel, to familiarize them with the program and the participants.

15. Invite management representatives to sit in on classes, to observe class activities and familiarize themselves more fully with the program.

16. Establish a "learning resource room" within the production facility, equipped with reading and reference materials (e.g., newspapers, magazines, dictionaries, encyclopedias) and perhaps computers with software with which learners could practice using their English and math skills (e.g., typing tutorials, word processing, math games, resume-writing exercises, etc.) This room would double as a classroom and informal meeting place for learners and other workers. All workers (not just ESL students) could drop in to use the facility, thereby encouraging worker interest in learning and reducing the gaps between "production" and "education" and between "ESL students" and "English-speakers."